

ABSTRACT OF THE DISCLOSURE

A nitride-based semiconductor light-emitting device includes a GaN-based substrate and a semiconductor stacked-layer structure including a plurality of nitride-based semiconductor layers grown on the GaN-based substrate by vapor deposition. The GaN-based substrate has an interface region contacting the semiconductor stacked-layer structure and the interface region contains oxygen atoms of concentration n in the range of $2 \times 10^{16} \leq n \leq 10^{22} \text{ cm}^{-3}$.